

Project Title		Date
Project Address		Builder Name
Builder Contact	Telephone	Plan Number
HERS Rater	Telephone	Sample Group Number
HERS Provider	Telephone	Sample House Number

### **HERS RATER COMPLIANCE STATEMENT**

The house was:      Tested      Approved as part of sample testing, but was not tested

As the HERS rater providing diagnostic testing and field verification, I certify that:

CF-1R & CF-6R Compliance Documentation provided by Builder.

The following requirements for compliance credit were met.

### **MINIMUM REQUIREMENTS FOR DUCT EFFICIENCY COMPLIANCE CREDIT**

Distribution system is fully ducted (i.e., does not use building cavities as plenums or platform returns in lieu of ducts)

Where cloth backed, rubber adhesive duct tape is installed, mastic and drawbands are used in combination with cloth backed, rubber adhesive duct tape to seal leaks at duct connections.

### **Duct Diagnostic Testing Results**

	Required for Compliance	Measured by Installer and documented on CF-6R	Measured by Rater
Duct Pressurization Test Results (CFM @ 25 Pa) as required from CF-1R			
Duct System Fan Flow Results (CFM) as required from CF-6R			

### **Field Verification Results**

1. ☐ Yes ☐ No –ACCA Manual D Design was used for compliance (CF-1R) If yes is checked, fill out line 1a through 1c and line 2, otherwise go to line 3
  - 1a. ☐ Yes ☐ No –Verify ACCA Manual D Design Calculations match plans and
  - 1b. ☐ Yes ☐ No –Duct Layout on the plans – duct sizes, lengths, and register air flows and
  - 1c. ☐ Yes ☐ No –Actual distribution is consistent with the design (including duct runs no longer than design, ducts not constricted or compressed, duct sizes and insulation values match design), and either
    - 1c1 \_\_\_\_\_ Tested system fan flow (see above results) is not less than design<sup>1</sup>, or
    - 1c2 \_\_\_\_\_ Thermostatic expansion valve and removable access panel on the cooling coil is installed
2. ☐ Yes ☐ No –ACCA Manual D Design requirements have been met (rater has verified Yes for item 1 and has checked that either 1c1 or 1c2 is true.
3. ☐ Yes ☐ No –Were Ducts Located in Conditioned Space used for compliance (CF-1R)? If Yes, verify and check either 3a or 3b to identify which alternative was used for compliance, otherwise go to line 5.
  - 3a \_\_\_\_\_ Less than 12 feet of duct and air handler plenum length is installed in unconditioned space, or

<sup>1</sup> Measurement system is required to have an accuracy of  $\pm 5\%$  of reading or  $\pm 5$  CFM, whichever is greater. Measurement comparisons must be within this tolerance.

- 3b \_\_\_\_ 100% of duct (including air handler plenum) is installed in conditioned space. (Combustion equipment must be sealed from conditioned space).
4. ☐ Yes ☐ No –Requirements for ducts inside of conditioned space have been met (Rater has verified Yes for items 3 and has checked that either 3a or 3b is true.
5. ☐ Yes ☐ No –Was reduced Duct Surface Area in Unconditioned Locations used for compliance (CF-1R)? If Yes, document the areas used for compliance in the second column and the actual areas installed in the last column of the following table.

Measured duct exterior surface area in the following unconditioned duct locations (square feet):

	Maximum allowed for Compliance (from CF-1R )	Actual (Measured outside surface area calculated from measured outside perimeter and lengths)
Attics	_____	_____
Crawlspaces	_____	_____
Basements	_____	_____
Other (e.g., garages, etc.)	_____	_____

6. ☐ Yes ☐ No –Requirements for reduced duct surface area have been met (Rater has verified Yes for line 5, Yes for line 2 and has checked that the values in the last column of the above table are no greater than the values in the second column.)

**MINIMUM REQUIREMENTS FOR INFILTRATION REDUCTION COMPLIANCE CREDIT**

the following requirements for compliance credit were met

1. ☐ Yes ☐ No –This building obtained compliance credit for envelope infiltration reduction. If Yes, fill in the values for the following table, otherwise leave the remainder of this infiltration form blank.

**Diagnostic Testing Results**

2. ☐ Yes ☐ No –CF-6R shows results of builder testing. If Yes, fill in the test values in the table below. (No indicates failure of builder to provide information required to determine compliance.)

	Needed for Compliance (from CF-1R)	Builder Compliance Results (from CF-6R)	Blowerdoor Test Results Measured by Rater
Building Envelope Leakage (CFM @ 50 Pa)	_____	_____	_____
Infiltration level (CFM @ 50 Pa) equivalent to an SLA of 3.0 from CF-1R	_____	_____	_____
Minimum Building Infiltration (CFM @ 50 Pa) equivalent to an SLA of 1.5 from CF-1R	_____	_____	_____

**Field Verification Results**

- 2a. ☐ Yes ☐ No –Is measured infiltration less than the infiltration level used to determine compliance? (No indicates failure to meet infiltration level used for determining compliance)
- 2b. ☐ Yes ☐ No –Is design infiltration less than the SLA 3.0 equivalent? (Yes requires mechanical ventilation)
- 2b1 ☐ Yes ☐ No –Is mechanical ventilation installed? (No indicates failure to achieve compliance if 2b is Yes)
- 2c. ☐ Yes ☐ No –Is measured infiltration less than minimum (1.5 SLA)?
- 2c1 ☐ Yes ☐ No –Is mechanical ventilation installed to assure house pressure does not go below minus 5 Pascal relative to outside ambient with all exhaust fans operating (No indicates failure to achieve compliance if 2c is Yes)?
3. ☐ Yes ☐ No –This certifies that the building infiltration was verified (rater has verified Yes for items 1 and 2a and has responded to 2b, 2b1, 2c and 2c1). By checking Yes, rater is certifying that house passes infiltration reduction requirements.

When compliance credit is claimed for building infiltration reduction below default assumptions, builder employees or subcontractors shall certify that they have verified that the building infiltration level matches that used for compliance on the CF-1R and shall document the infiltration levels required for compliance and the tested infiltration values on the CF-6R. The rater shall indicate failure to achieve compliance with infiltration reduction requirements if the builder has not provided this documentation.

**Mechanical Ventilation (fill in table if 2b1 or 2c1 are Yes)**

	Needed for Compliance (from CF-1R)	Installed by Builder (From CF-6R)	Actual as determined by Rater
Continuous Mechanical Ventilation (CFM) <sup>2</sup>			
Continuous Mechanical Supply Ventilation (CFM) Required to maintain -5 Pa if building envelope leakage is less than Minimum (Put NA in this row if 2c is No)			
Total Power Input Power of Continuous Mechanical Ventilation (Watts) <sup>3</sup>			

4. ☐ Yes ☐ No –Is Actual mechanical ventilation equal to, or greater than, needed for Compliance? (No indicates failure to comply)
5. ☐ Yes ☐ No –Is Actual mechanical supply ventilation equal to, or greater than, needed for Compliance? (No indicates failure to comply. Check Yes if NA is used on this row in the above table.)
6. ☐ Yes ☐ No –Is Actual Total Input Power less than or equal to that needed for compliance? (No indicates failure to comply.)

**HERS Rater**

Name: \_\_\_\_\_ Firm: \_\_\_\_\_

Street Address: \_\_\_\_\_ City/State/Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_ HERS Provider: \_\_\_\_\_

\_\_\_\_\_ Telephone: \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Copies to: Builder  
HERS Provider

The following is an explanation of many of the input values required on the Diagnostic portion of this form:

**TYPE OF CREDIT**

Refer to *Residential Manual* Chapters 4 and 5 for more details:

All:	If the HERS Rater determines that any features that are used for determining compliance on the CF-1R are designated <i>HERS Required Verification</i> they must appear on the CF-6R and also must be documented on this CF-4R as meeting the claims made in the CF-1R. If this does not occur, the HERS Rater shall not certify that the building complies and shall not sign the CF-4R. When testing for individual buildings, any failures should be reported back to the builder for correction. When testing as part of a sample of buildings, the failure to comply must be documented as described in Chapter 4.
Reduced Duct Surface Area:	Calculated as the outside area of the duct. Areas must be measured and verified by a HERS rater

<sup>2</sup> When mechanical ventilation is required, CFM less than 0.047 CFM per square foot of conditioned floor area indicates failure to achieve compliance.

<sup>3</sup> As determined from label on fan or manufacturers literature.

Improved Duct Location:	Supply duct located in other than attic, as verified by location of registers (Requires HERS rater verification when used with reduced duct surface area or for ducts inside conditioned space)
Catastrophic Leakage:	Pressure pan test readings must be less than 1.5 Pascal at a house pressure of 25 Pascal.
TXV:	Access cover required to facilitate verification
Infiltration Reduction:	Infiltration is measured without mechanical ventilation operating. Mechanical ventilation is required for very tight house construction when credits for infiltration reduction using diagnostic testing are being used for achieving compliance. These very tight houses are defined as those with SLA of less than 1.5. The compliance documentation (CF-1R) will contain the measured CFM target value from a blower door test at 50 Pascal pressure difference that represents this SLA of 1.5. Mechanical ventilation is also required if the builder chooses to design the building to use mechanical ventilation and claims a credit for infiltration below an SLA of 3.0. The compliance documentation (CF-1R) will contain the measured CFM target value that represents this 3.0 SLA. If the builder claims credit in a design for infiltration reduction that is at an SLA of 3.0 or higher, and the actual measured SLA is 1.5 or greater, then mechanical ventilation is not required. If the SLA in this case were below 1.5, then mitigation (such as mechanical ventilation) would be required.
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